IN THE CLAIMS

Please amend the claims as follows.

For the Examiner's convenience, a list of all claims is included below.

1. (Currently Amended) A method comprising:

impinging laser energy on a substrate; and

effecting laser-induced cleaving of ~~the~~ a substrate by performing at least one of:

stoichiometrically designing a composition of a material to form a cleave layer in the substrate to match a bond breaking energy involving the material to a laser energy characterized by a laser wavelength; and

selecting the laser wavelength to provide the laser energy to substantially match a bond-breaking threshold energy of the material, based upon at least a stoichiometric composition of the material of the cleave layer.

2. (Cancelled)

3. (Currently Amended) A method as claimed in claim [[2]] 1, wherein the substrate comprises silicon (Si), the ~~predetermined~~ material comprises germanium (Ge), and the laser wavelength ~~energy~~ is tuned to provide the laser energy to be greater than a band gap of SiGe by smaller than that of Si.

4. (Currently Amended) A method as claimed in claim [[2]] 1, wherein the substrate comprises silicon (Si), the ~~predetermined~~ material comprises hydrogen (H), and the laser energy is infrared laser energy.

5. (Currently Amended) A method as claimed in claim [[2]] 1, wherein the laser energy induces selective bond breaking at an interface of a host material of the substrate and the ~~predetermined~~ material of the cleave layer, to effect the laser-induced cleaving of the substrate substantially along interface.

6. (Cancelled)

7. (Currently Amended) A method as claimed in claim [[6]] 1, comprising predetermined balancing of a stoichiometric composition of the material of the cleave layer verses a ~~degree of the~~ predetermined laser energy to effect a predetermined cleave yield.

8. (Currently Amended) A method as claimed in claim [[2]] 1, comprising:

bonding the substrate to a receiving substrate prior to the laser-induced cleaving, wherein upon the laser-induced cleaving, a layer cleaved from the substrate remains bonded to receiving substrate.

9. (Currently Amended) A method ~~as claim in claim 1~~, comprising:

effecting laser-induced cleaving of a substrate by using simultaneous application of a plurality of interfering laser beams to effect a ~~the predetermined~~

laser energy to effect the laser-induced cleaving substantially along a laser-defined cleave plane.

10. (Currently Amended) A method as claimed in claim 9, ~~comprising:~~

wherein the plurality of interfering laser beams ~~having~~ have at least one of specifically tuned energies, incidence angles, and~~/or~~ space profiles, to define a desired cleave plane.

11. (Original) A method as claimed in claim 9, comprising:

designing a profile of a laser energy interference pattern to define depth of a desired cleave plane.

12. (Original) A method as claimed in claim 9, comprising:

effecting a predetermined material within the substrate to form a predetermined cleave layer, within which the laser-induced cleaving is to be effected.

13. (Original) A method as claimed in claim 12, wherein the substrate comprises silicon (Si), the predetermined material comprises germanium (Ge), and the laser energy is tuned to be greater than a band gap of SiGe but smaller than that of Si.

14. (Original) A method as claimed in claim 12, wherein the substrate comprises silicon (Si), the predetermined material comprises hydrogen (H), and the laser energy is infrared laser energy.

15. (Original) A method as claimed in claim 12, wherein the laser energy induces selective bond breaking at an interface of a host material of the substrate and the predetermined material, to effect the laser-induced cleaving of the substrate substantially along the interface.

16. (Currently Amended) A method as claimed in claim 12, comprising at least one of:

stoichiometrically designing a composition of the material to substantially match a bond breaking energy involving the material, to the ~~predetermined~~ laser energy; and

selecting the laser wavelength ~~predetermined~~ to provide the laser energy to substantially match a bond-breaking threshold energy of the material, based upon at least a stoichiometric composition of the material.

17. (Currently Amended) A method as claimed in claim 16, comprising predetermined balancing of a stoichimetric composition of the material of the cleave layer verses a ~~degree of the~~ predetermined laser energy to effect a predetermined cleave yield.

18. (Original) A method as claimed in claim 9, comprising:

bonding the substrate to a receiving substrate prior to the laser-induced cleaving, wherein upon the laser-induced cleaving, a layer cleaved from the substrate remains bonded to the receiving substrate.

19. (Original) A method as claimed in claim 1, comprising:

impinging the laser energy on at least one side edge of the substrate in a side-cut mode in effecting the laser-induced cleaving.

20. (Cancelled)

21. (Currently Amended) A method as claimed in claim [[20]] 19, wherein the substrate comprises silicon (Si), the ~~predetermined~~ material comprises germanium (Ge), and the laser wavelength ~~energy~~ is tuned to provide the laser energy ~~be~~ greater than a band gap of SiGe but smaller than that of Si.

22. (Currently Amended) A method as claimed in claim [[20]] 19, wherein the substrate comprises silicon (Si), the ~~predetermined~~ material comprises hydrogen (H), and the laser energy is infrared laser energy.

23. (Currently Amended) A method as claimed in claim [[20]] 19, wherein the laser energy induces selective bond breaking at an interface of a host material of the substrate and the ~~predetermined~~ material, to effect the laser-induced cleaving of the substrate, substantially along the interface.

24. (Cancelled)

25. (Currently Amended) A method as claimed in claim [[24]] 19, comprising predetermined balancing of a stoichiometric composition of the material verses a ~~degree of the~~ predetermined laser energy to effect a predetermined cleave yield.

26. (Original) A method as claimed in claim 19, comprising:

forming micro-voids in the substrate prior to impinging the laser energy on the at least one side edge of the substrate in the side-cut mode, and effecting the laser-induced cleaving along cleave plane defined by ones of the micro-voids.

27. (Currently Amended) A method as claimed in claim [[20]] 26, wherein the substrate comprises silicon (Si), wherein the micro-voids are formed by implantation of at least one of hydrogen (H), H2 and helium (He) into the substrate, and subsequent annealing of the substrate.

28. (Original) A method as claimed in claim 19, comprising:

bonding the substrate to a receiving substrate prior to the laser-induced cleaving, wherein upon the laser-induced cleaving, a layer cleaved from the substrate remains bonded to the receiving substrate.

29. (Original) A system comprising:

at least one item selected from a list of: an electronic package, PCB, socket, bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device manufactured through use of at least the method of claim 1.

30. (Cancelled)

31. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 3.

32. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 4.

33. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 5.

34. (Cancelled)

35. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 7.

36. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 8.

37. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 9.

38. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 10.

39. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 11.

40. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 12.

41. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 13.

42. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 14.

43. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 15.

44. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 16.

45. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 17.

46. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 18.

47. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 19.

48. (Cancelled)

49. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 21.

50. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 22.

51. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 23.

52. (Cancelled)

53. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 25.

54. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 26.

55. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 27.

56. (Original) A system comprising:

at least one item selected from a list of : an electronic package, PCB, socket bus portion, input device, output device, power supply arrangement and case; and

at least one silicon-on-insulator semiconductor device maufactured through use of at least the method of claim 28.